



ESSP-3 Announcement of Opportunity

Technical and Management Requirements

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ESSP-3 Technical & Management Requirements



- **Technical and management requirements are provided in the AO**
 - **Section 3.5 Technical Requirements**
 - **Section 3.7 Management Requirements**
 - **Appendix K**
 - **Table K-1 Proposal Page Count Limits**
 - **Table K-3 Compliance Table**
 - **Section G Technical Implementation**
 - **Section H Management**
 - **Earth Explorers Program Mission Assurance Guidelines and Requirements**
 - **Earth Explorers Program Flight and Ground Safety Requirements**
 - **Includes orbital debris assessment**
 - **Must read “ESSP AO Questions” on the ESSP-3 AO website for Q&A’s and updates**
 - <http://www.earth.nasa.gov/>, Research Opportunities, or
 - <http://essp.larc.nasa.gov/essp>
- **Requirements are different for Step-One and Step-Two**
 - **Step-Two asks for more detail and more information**
 - **Step-One-- Technical page limit 5 pages; Management page limit 3 pages**
 - **Step-Two-- Technical page limit 50 pages; Management page limit 25 pages**
- **Technical and management tall poles will be identified in Step-One and reported to the Science/Applications Evaluation Panel**
- **A full Technical, Management and Cost evaluation will be conducted in Step-Two**



ESSP-3 Technical Requirement Highlights



- **All technical aspects of the proposed investigation must be included from concept definition through mission operations and data analysis, archival, and dissemination**

Mission Formulation	Phase 1	Mission Concept Studies
	Phase 2	Mission Definition & Preliminary Design
Mission Implementation	Phase 3	Mission Detailed Design
	Phase 4	Mission Develop. and Launch
	Phase 5	Mission Operations and Data Analysis, Archival, and Dissemination

- **Committed to infusing new technologies that lower mission costs**
- **Significant technology development will be difficult because of short ESSP development time**
 - **Any required new technology, technology development or technology enhancement must be identified along with a discussion of risk and risk mitigation approaches**



ESSP-3 Technical Requirement Highlights (concluded)



- **Step-One proposals at minimum shall cover the following items(s)***
 - **Mission Design and Table K-5**
 - **Instrument Implementation**
 - **Launch Service and Table K-7**
- **Step-Two proposals at minimum shall cover the following item(s)***
 - **Mission Design and Table K-5**
 - **Instrument Implementation**
 - **Instrumentation Interface and Payload Integration**
 - **Spacecraft, Spacecraft Technical Maturity Matrix (L-2b), Table K-6**
 - **Launch Service and Table K-7**
 - **Manufacturing, Integration and Test**
 - **Mission Operations, Ground and Data System and Table K-8**
 - **Plans to Resolve Open Technical Implementation Issues**

***Note- Must be within the constraints of the page limits**



ESSP-3 Management Requirement Highlights



- **NASA will maintain oversight and reporting requirements at a level that will ensure mission success and agreed-upon science return in compliance with committed cost, schedule, performance, quality, reliability and safety requirements**
- **ESSP missions shall have the following**
 - **Product Assurance Program**
 - **Safety Plan**
- **Required system level reviews (10) that must be in mission schedule**

Systems Requirements Review	Preliminary Design Review
Mission Design Review	Confirmation Readiness Review
Mission Confirmation Review	Critical Design Review
Pre-Environmental Review	Pre-Ship/Operational Readiness Review
Mission Readiness Review	Flight Readiness Review
- **Principal Investigator (PI)-Mode missions**
 - **PI totally responsible for mission including science/applications integrity**
 - **Project Manager reports directly to PI**
 - **Other key individuals include systems engineer and co-investigators**
 - **All participants shall have identified roles and be included in the funding profiles**



ESSP-3 Management Requirement Highlights (concluded)



- **Step-One proposals at minimum shall cover the following items(s)***
 - **Management Processes and Plans**
 - **Schedule**
- **Step-Two proposals at minimum shall cover the following item(s)***
 - **Management Processes and Plans**
 - **Schedule**
 - **Team Organization, Structure, and Experience**
 - **Risk Management**
 - **Mission Assurance and Safety**
 - **Facilities and Equipment**
 - **Plans to Resolve Open Management Issues**
 - **Site visit location**

***Note- Must be within the constraints of the page limits**



Final Comment



- **Questions after Preproposal Conference**
 - **Use ESSP AO Questions website at <http://essp.larc.nasa.gov/essp>**
 - **Questions will be answered on a time available basis**
 - **Answers will only be posted to ESSP AO website**